Spot Test Report (TC12 & TC19)
according to EN301 406 V1.5.1 (2003-07)
Digital Enhanced Cordless Telecommunic (DECT)

Report No.: 60.860.9.029.03R

Client:	Shenzhen Guo Wei Electronics Co., Ltd.
Product:	DECT Phone
System Under Test (SUT):	DECT70-B95 (PP)
Manufacturer	Shenzhen Guo Wei Electronics Co., Ltd.
Date test item received:	2009/04/17
Date test campaign completed	2009/05/14
Date of issue:	2009/05/15
Test results:	COMPLIED

The test report include test result of conformance log layer 1.
Total number of pages of this test report: 21 pages

Approved by

Deputy Telecom Manager

TÜV SÜD Hong Kong Ltd.
TÜV SÜD Group
3/F., West Wing, Lakeside 2, 10 Science Park West Avenue, Science Park, Shatin, Hong Kong

Contents

Remarks:

1) Measurement:
Below 1GHz (using Dipole Antenna)
ERP:SG level-cable loss

2) Measurement:
Above 1GHz(using Horn Antenna)
ERP:SG level +Antenna Gain(dBi)-cable loss-EIRP transfer to ERP factor

Following record as H,V mean that testing at Horizontal, Vertical

1.1 Client identification

Name	Shenzhen Guo Wei Electronics Co., Ltd.
Contact person	Mr. C.W. Cheung
Address	No. 68, Guowei Road, Liantang Industrial District, Shenzhen, P.R.C
Phone No.	+86 755 2573 6666
Fax No.	86 755 2573 2288

1.2 Comments for testing

Delivery date of Test Candidate: 2009.04.17
The tests were done from 2009.04.17 to 2009.05.14

Test Location:
T01

During the tests were present:
Mr.Jeff Pong from **TÜV SÜD Hong Kong Ltd.**
Mr. C.W. Cheung from **Shenzhen Guo Wei Electronics Co., Ltd.**

The test set-up and tests are according toEN301 406 V1.5.1(2003-07) and **DTAAB DT.04 V10 from 11/99** and the internal test comments of the test lab.

All radiated measurements were done in the anechoic chamber
The test site and the whole test equipment is according to standards
EN301 406 V1.5.1 (2003-07).

2. Test campaign report

2.1 TC 12 Spurious emissions when allocated a transmit channel (4.5.6.5)

Channel 5, radiated

30 MHz – 1 GHz	aimed ≤ -36 dBm	actual ≤ -51.65 dBm	P
1 GHz – 4 GHz	aimed ≤ -30 dBm	actual ≤ -41.63 dBm	P
Peak at 3.777 GHz hor.	aimed ≤ -30 dBm	actual ≤ -37.23 dBm	P
broadcast bands according to TBR 6	aimed ≤ -47 dBm	actual ≤ -64.43 dBm	P

Measurement uncertainty f<1GHz: + 2.89 dB / -2.98 dB
f>1GHz: + 3.53 dB / -3.53 dB

Remark:second harmonic is marginal result in uncertainty range

2.2 TC 19 Spurious emissions when the radio endpoint has no allocated transmit ch. (4.5.7.7)

The EUT shall conformance

Outside the DECT band:

The emission as measured shall not be greater than 2nW (-57dbm) between 30MHz and 1GHz; and between 1GHz and 12.75GHz the emission as measured shall not exceed 20nW(-47dBm).

Inside the DECT band:

The power level as measured of any spurious emission shall not exceed 2nW(-57dBm) in a 1MHz Bandwidth.

In one 1MHz band within the DECT frequency band, the maximum allowable ERP shall be less than 20nW(-47dBm)

In up to two bands of 30KHz, the maximum ERP shall less than 250nw(-36dBm)

Radiated spurious emission

RF ranges	Maximun peak power level	Result/max.value	
30MHz--------1.0GHz	2nW(-57dBm)	-65.50 dBm	P
1GHz----------4GHz	20nW(-47dBm)	-48.23 dBm	Remark
Inside the DECT band	2nW(-57dBm)	-62.22 dBm	P

Measurement uncertainty radiated: + 3.53 dB / -3.53 dB

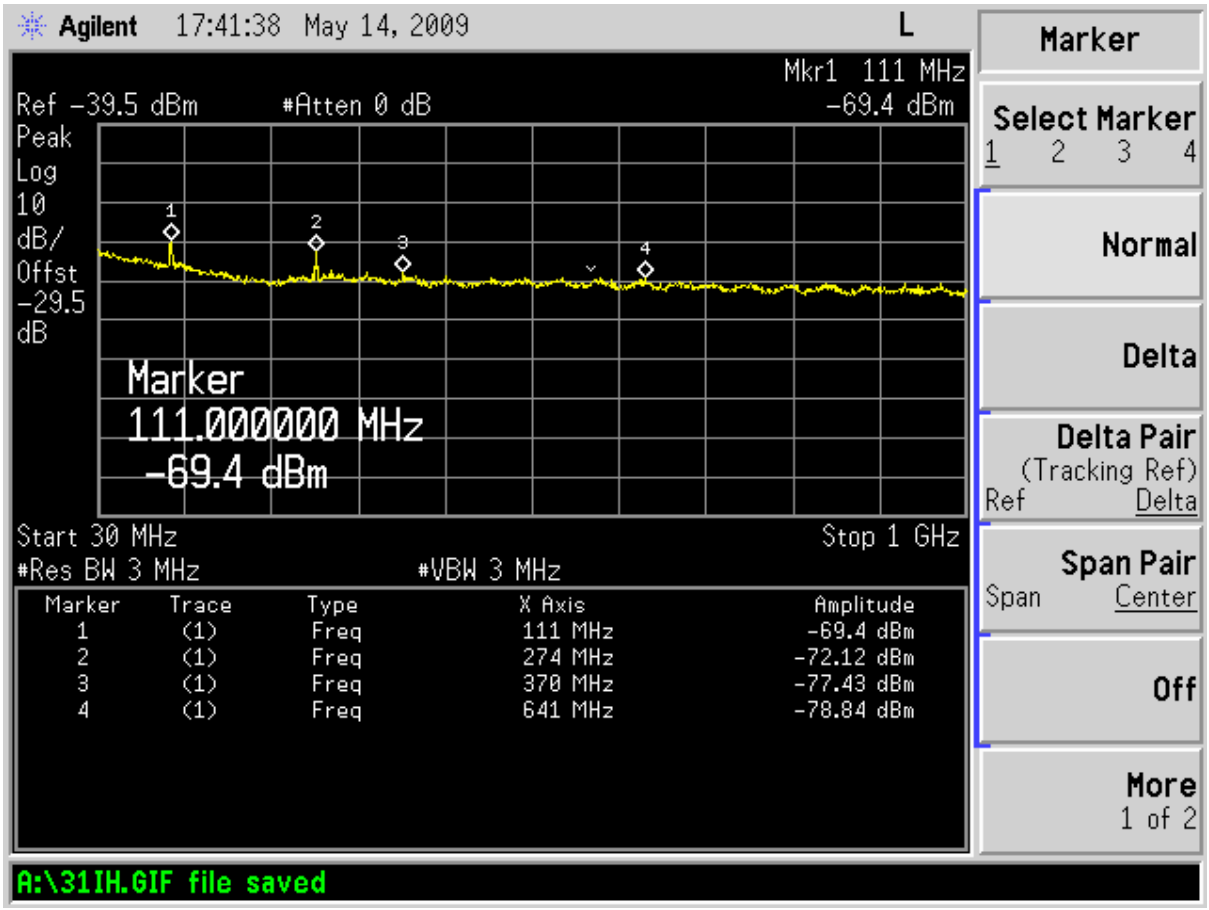
Remark:1-4GHz is marginal result in uncertainty range

Conducted spurious emission

RF ranges	Maximun peak power level	Result/max.value	
30MHz--------1.0GHz	2nW(-57dBm)	No Test	P
1GHz---------12.75GHz	20nW(-47dBm)	No Test	P
Inside the DECT band	2nW(-57dBm)	No Test	P

Measurement uncertainty conducted:+ 0.85 dB / -0.92 dB

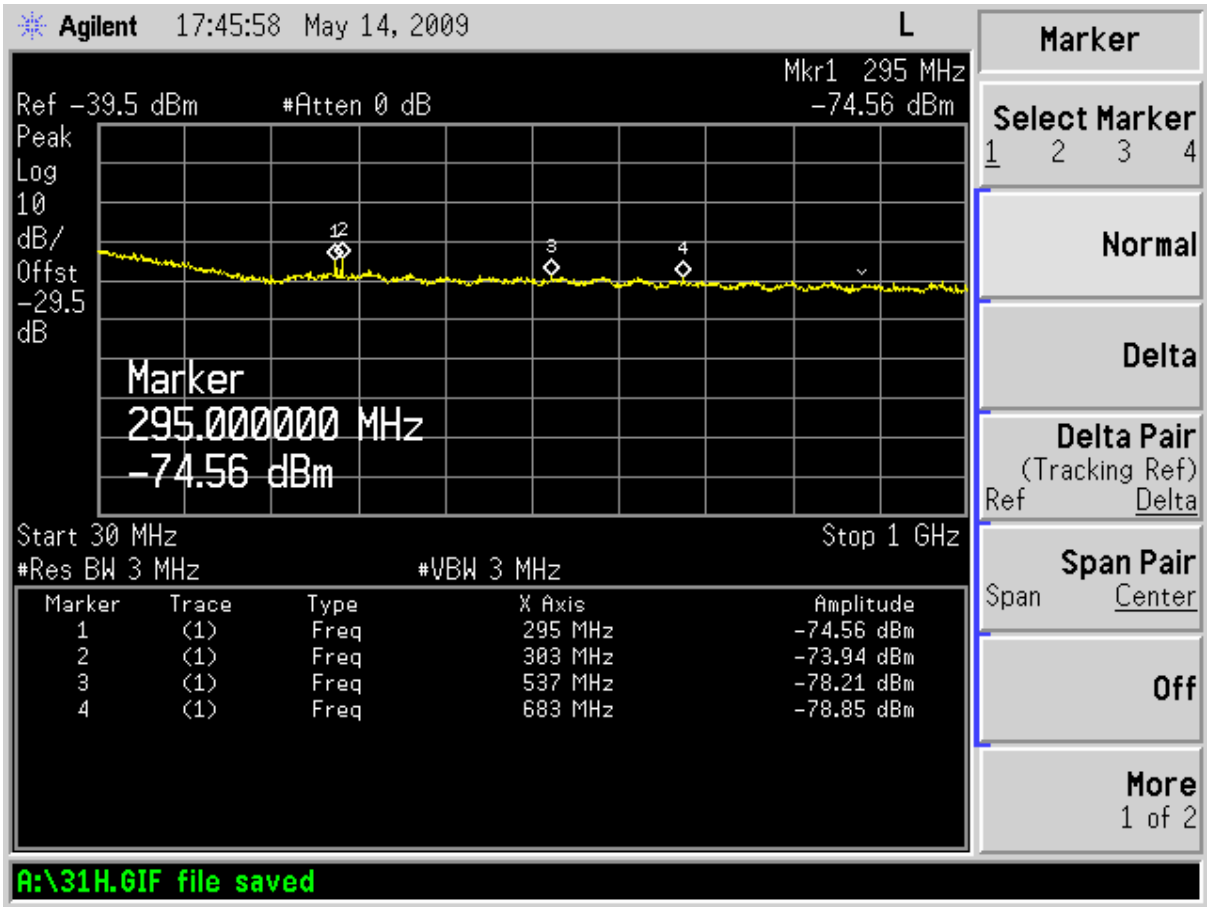
Appendix1 : Plotted Data of 30MHz to 1GHz(Out of broadcast band)



H

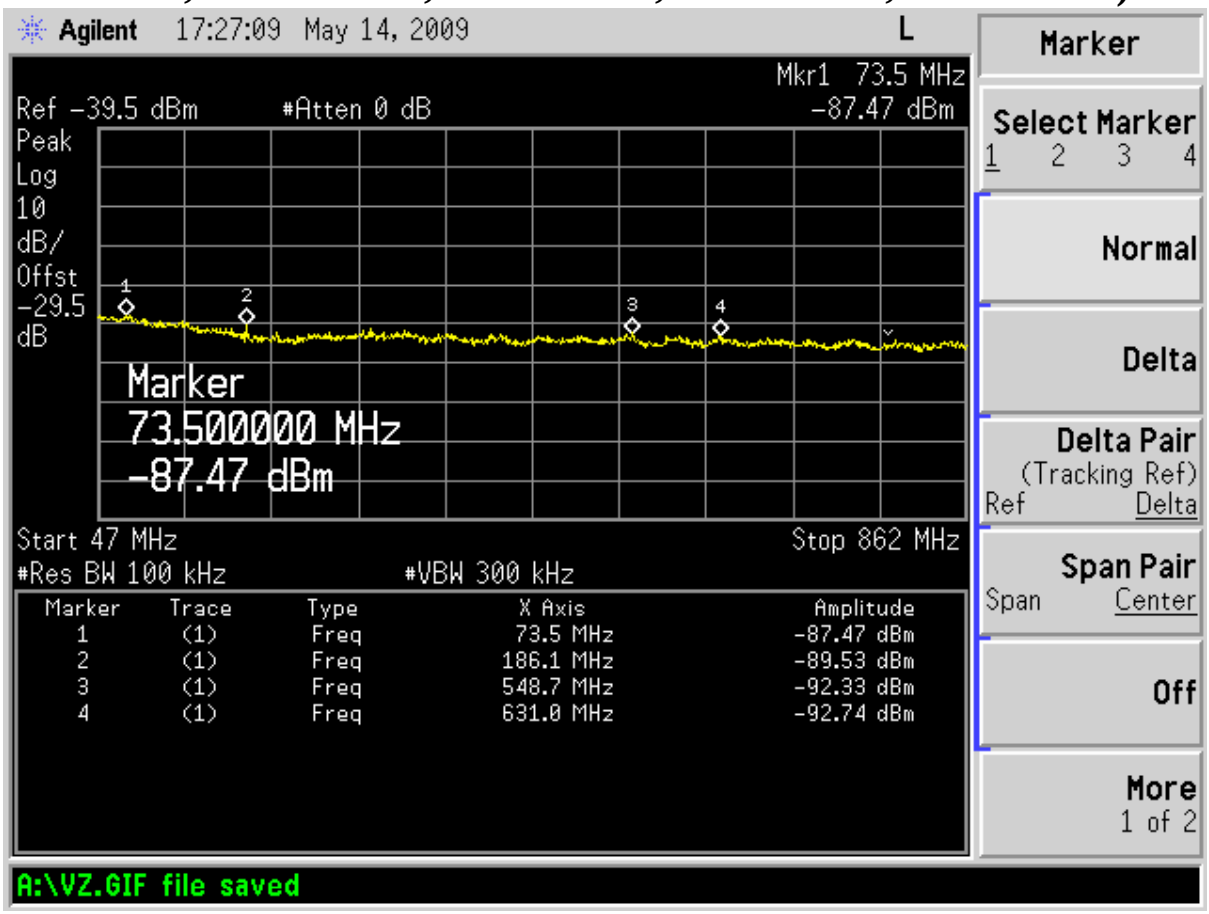
303MHz at V

ERP=-51.65dBm


Agilent 17:45:58 May 14, 2009
L
Mkr1 295 MHz
-74.56 dBm
Ref -39.5 dBm
#Atten 0 dB
Peak
Log
10
dB/
Offst
-29.5
dB
Marker
295.000000 MHz
-74.56 dBm
Start 30 MHz
Stop 1 GHz
#Res BW 3 MHz
#VBW 3 MHz
Marker Trace Type X Axis Amplitude
1 (1) Freq 295 MHz -74.56 dBm
2 (1) Freq 303 MHz -73.94 dBm
3 (1) Freq 537 MHz -78.21 dBm
4 (1) Freq 683 MHz -78.85 dBm
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2
A:\31H.GIF file saved

V

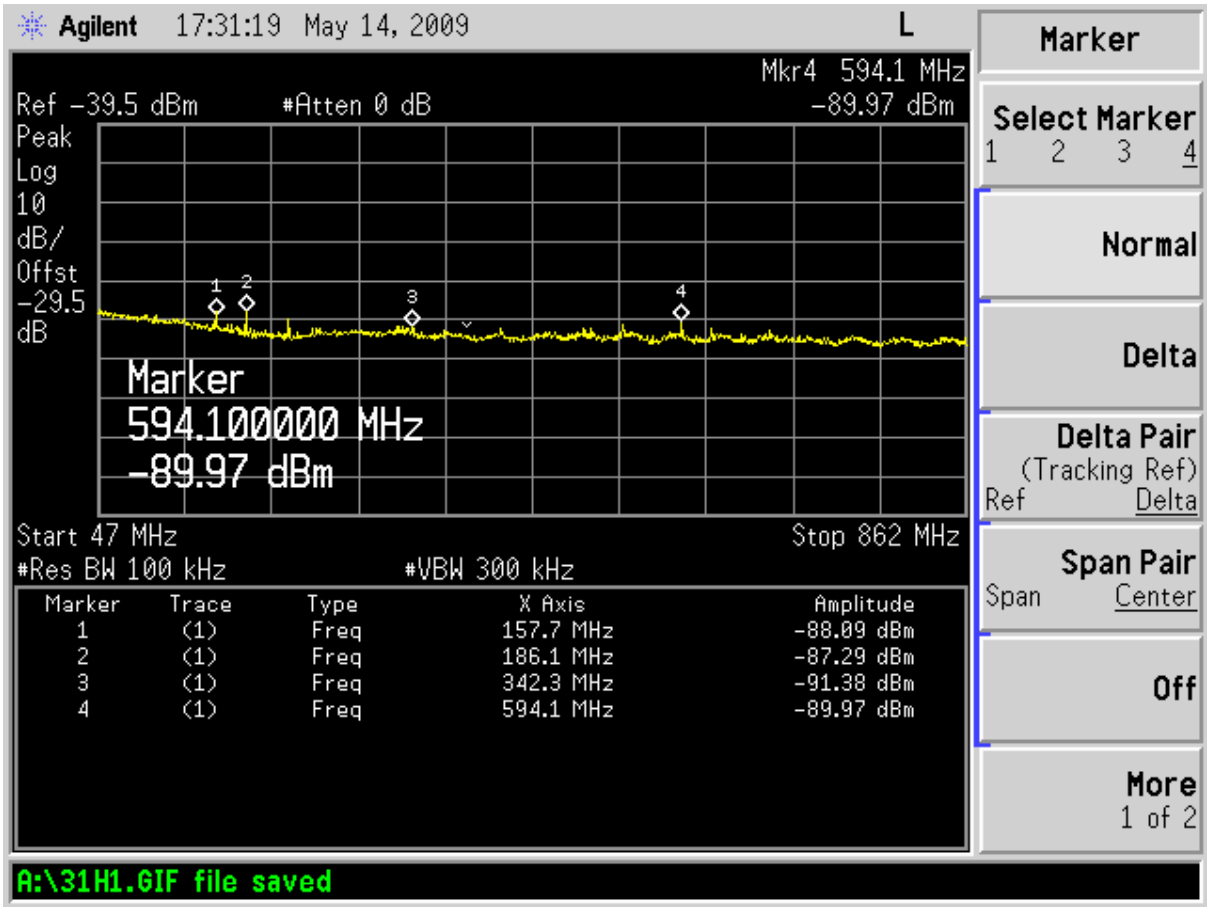
Appendix2 :Plotted Data of 30MHz to 1GHz (In broadcast band, 47-74MHz,87.5-108MHz,108-118MHz,174-230MHz,470-862MHz)



H

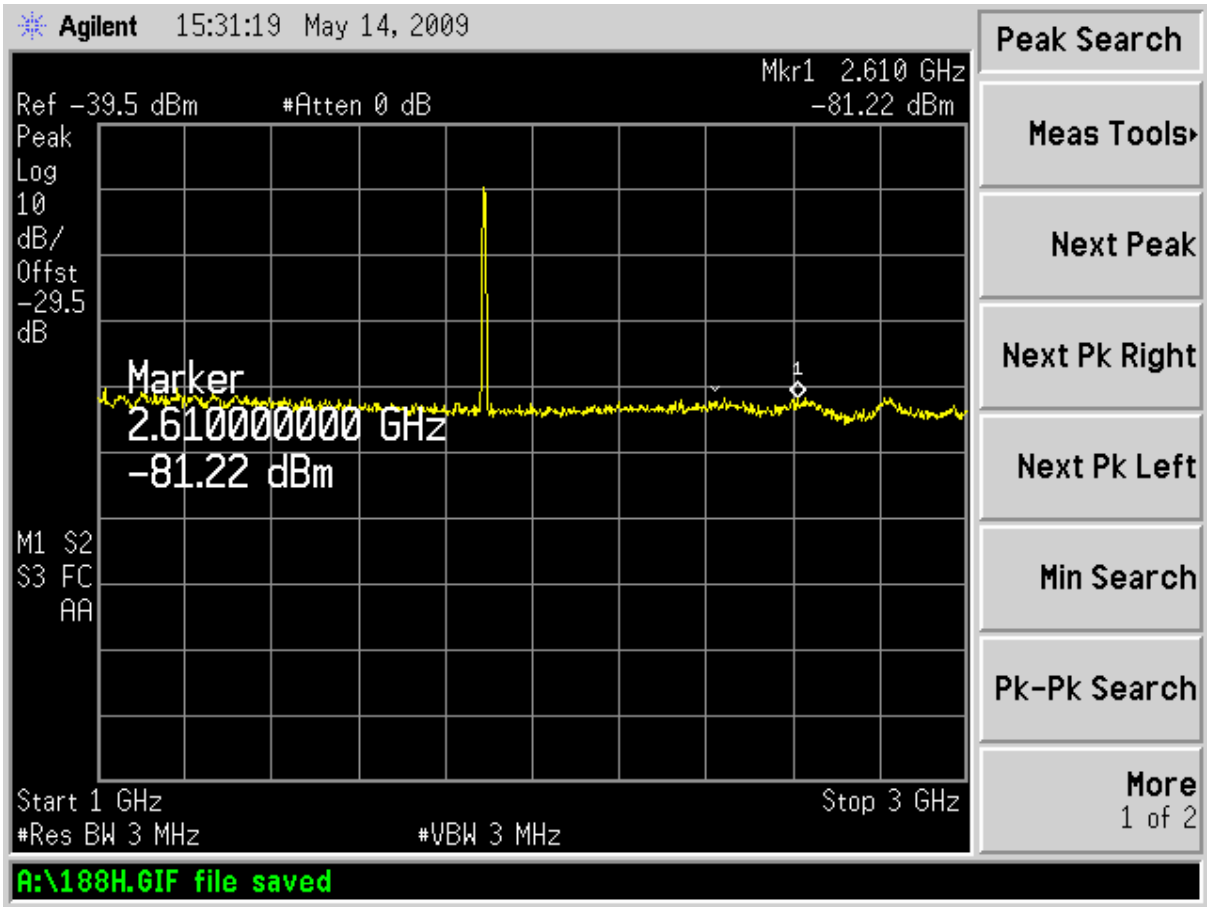
594.1MHz at V

ERP=-64.43dBm


Agilent 17:31:19 May 14, 2009
L
Mkr4 594.1 MHz
Ref -39.5 dBm
#Atten 0 dB
-89.97 dBm
Peak
Log
10
dB/
Offst
-29.5
dB
1 2
3
4
Marker
594.100000 MHz
-89.97 dBm
Start 47 MHz
Stop 862 MHz
#Res BW 100 kHz
#VBW 300 kHz
Marker Trace Type X Axis Amplitude
1 (1) Freq 157.7 MHz -88.09 dBm
2 (1) Freq 186.1 MHz -87.29 dBm
3 (1) Freq 342.3 MHz -91.38 dBm
4 (1) Freq 594.1 MHz -89.97 dBm
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2
A:\31H1.GIF file saved

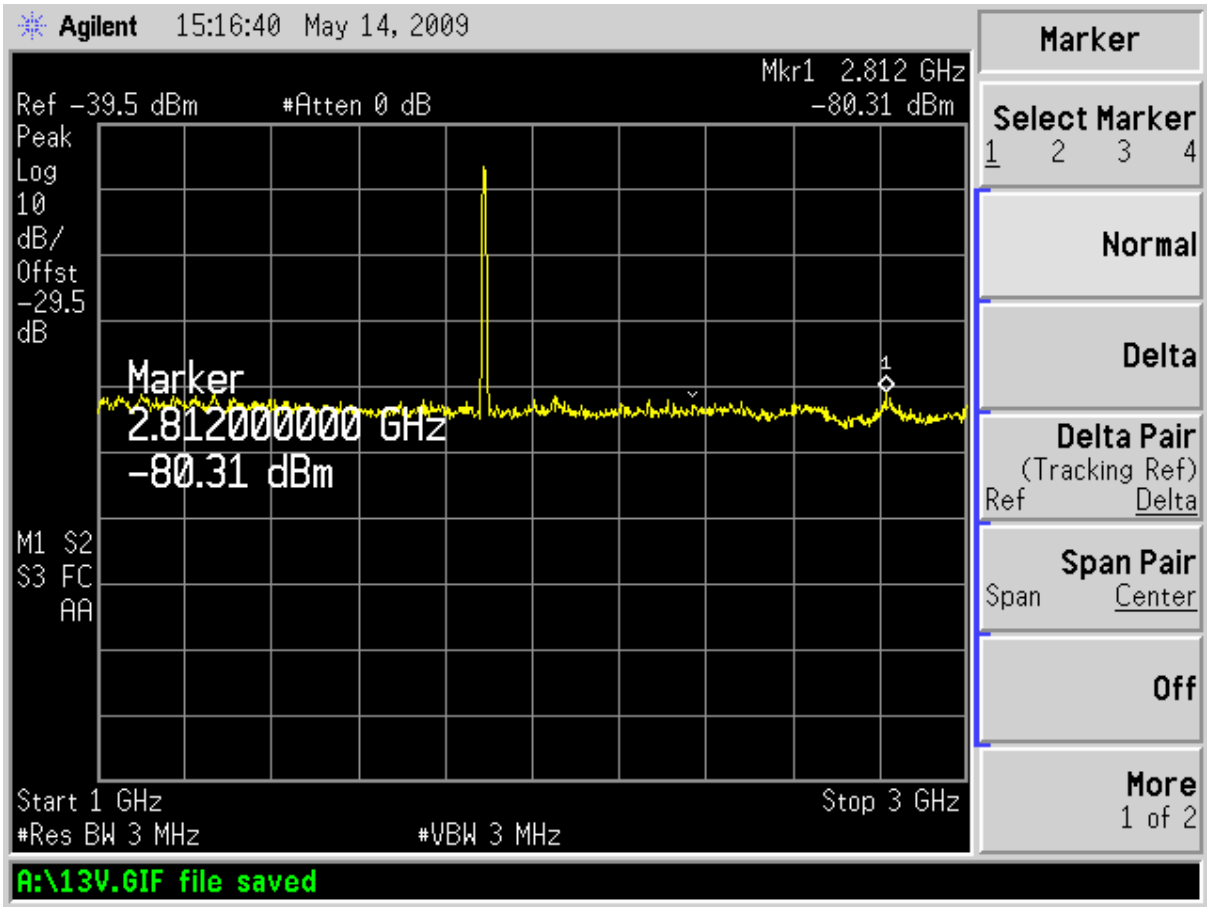
V

Appendix 3 : Plotted Data of 1GHz to 3GHz



H

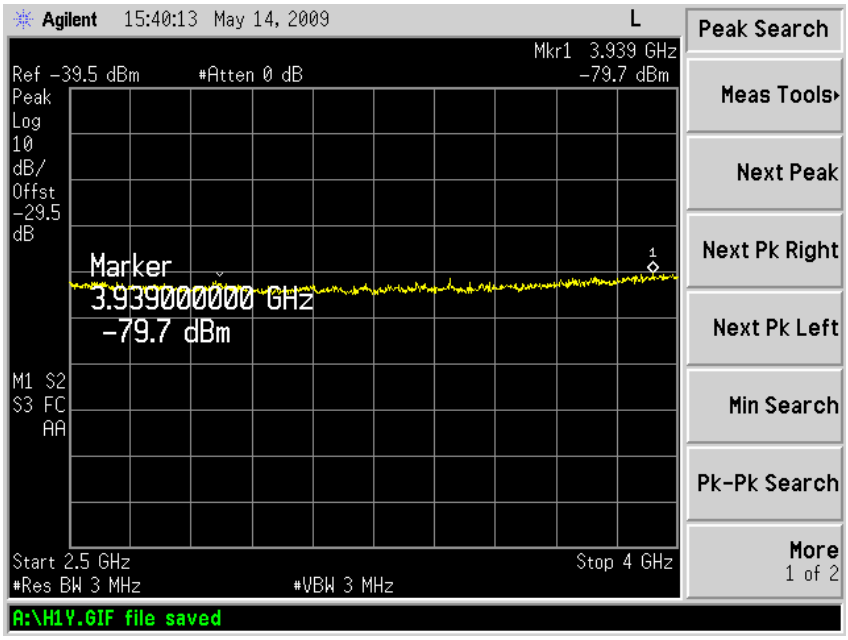
ERP=-44.5dBm



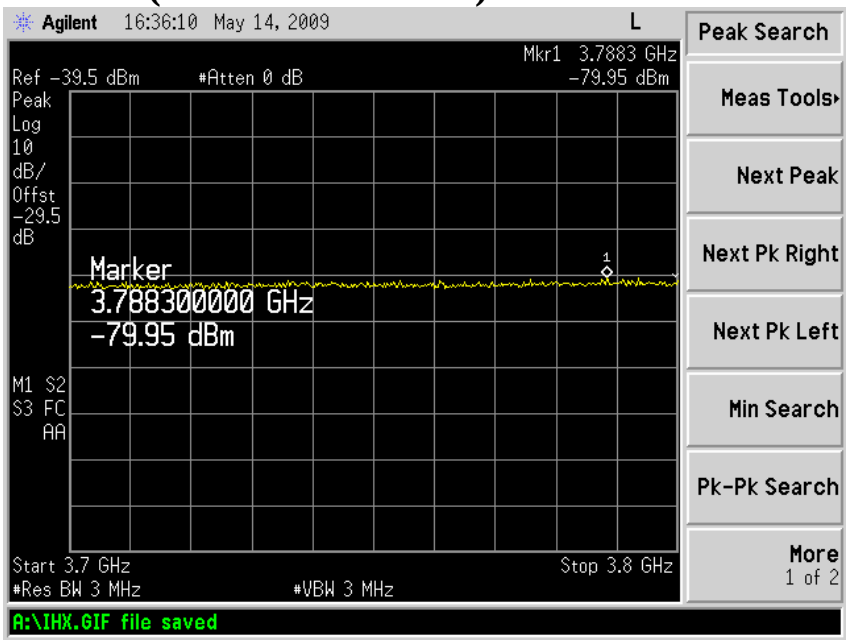
V

ERP=-41.63dBm

Appendix 4 : Plotted Data of 2.5GHz to 4GHz

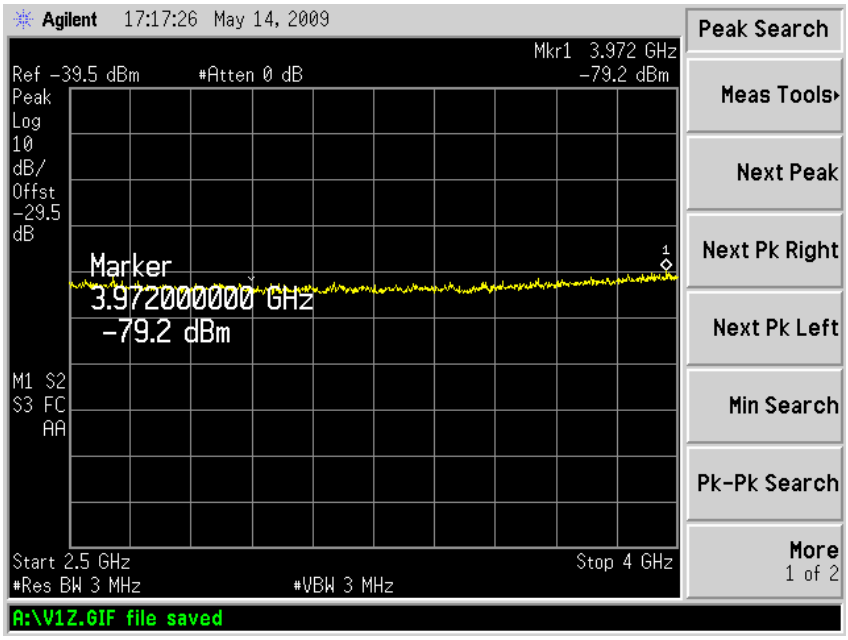


Zoom in(3.7GHz to 3.8GHz)

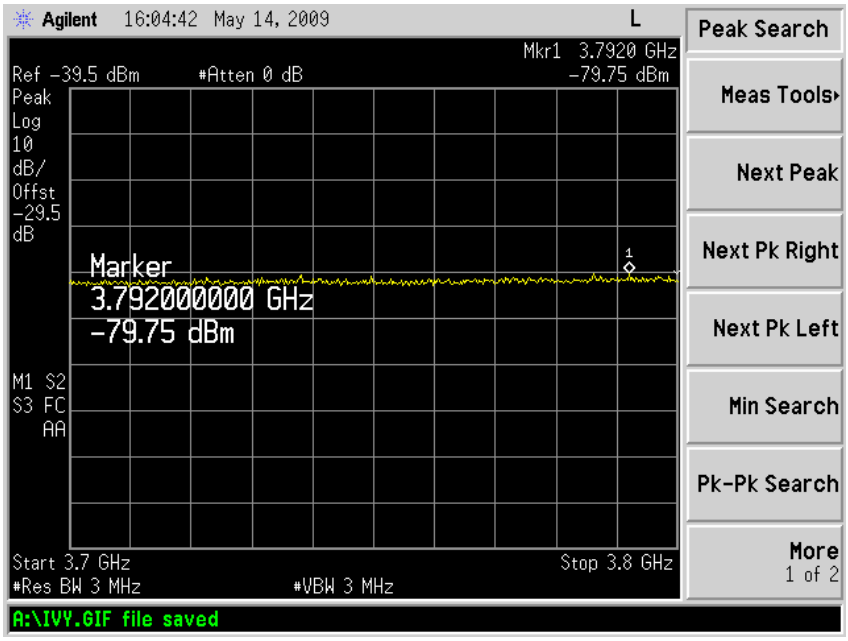


H

ERP=-37.23dBm



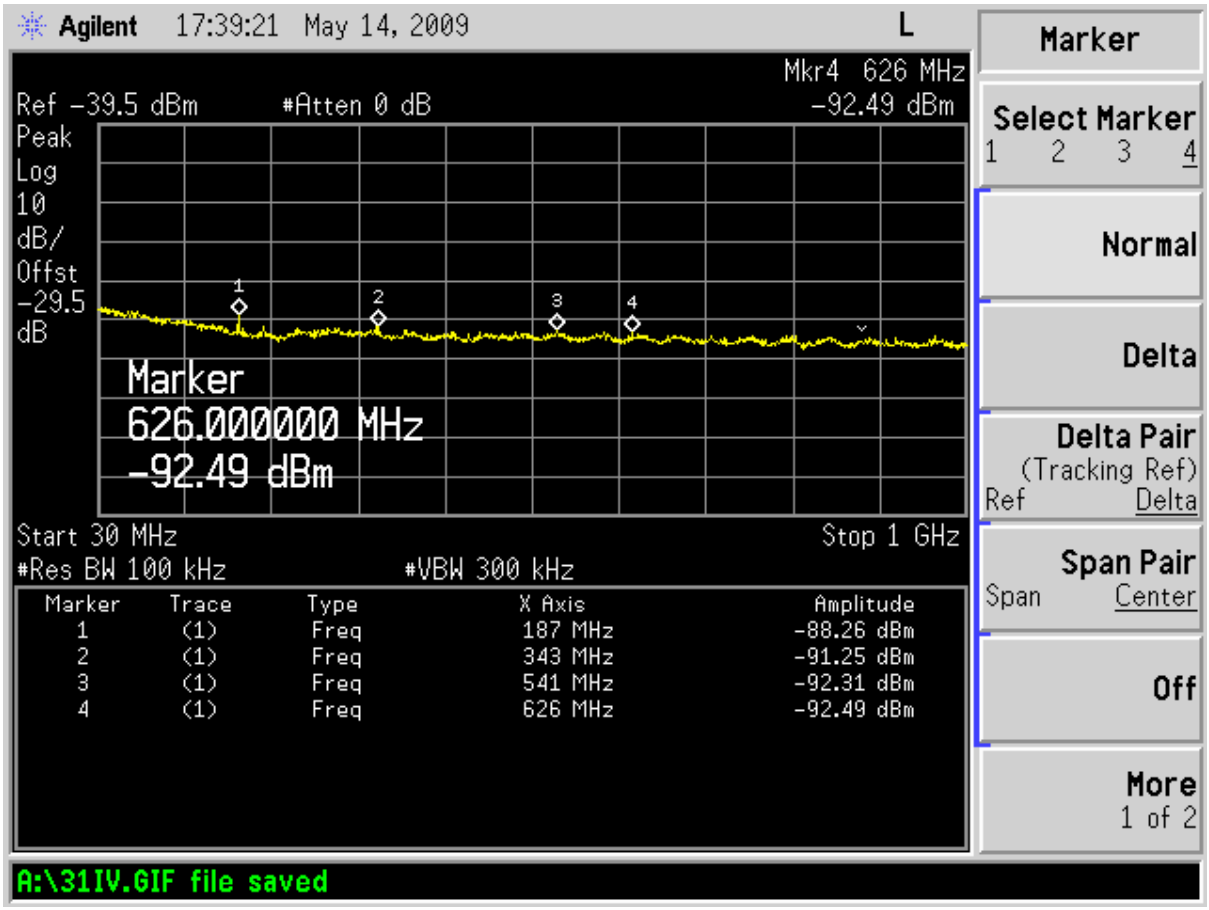
Zoom in



V

ERP=-38.19dBm

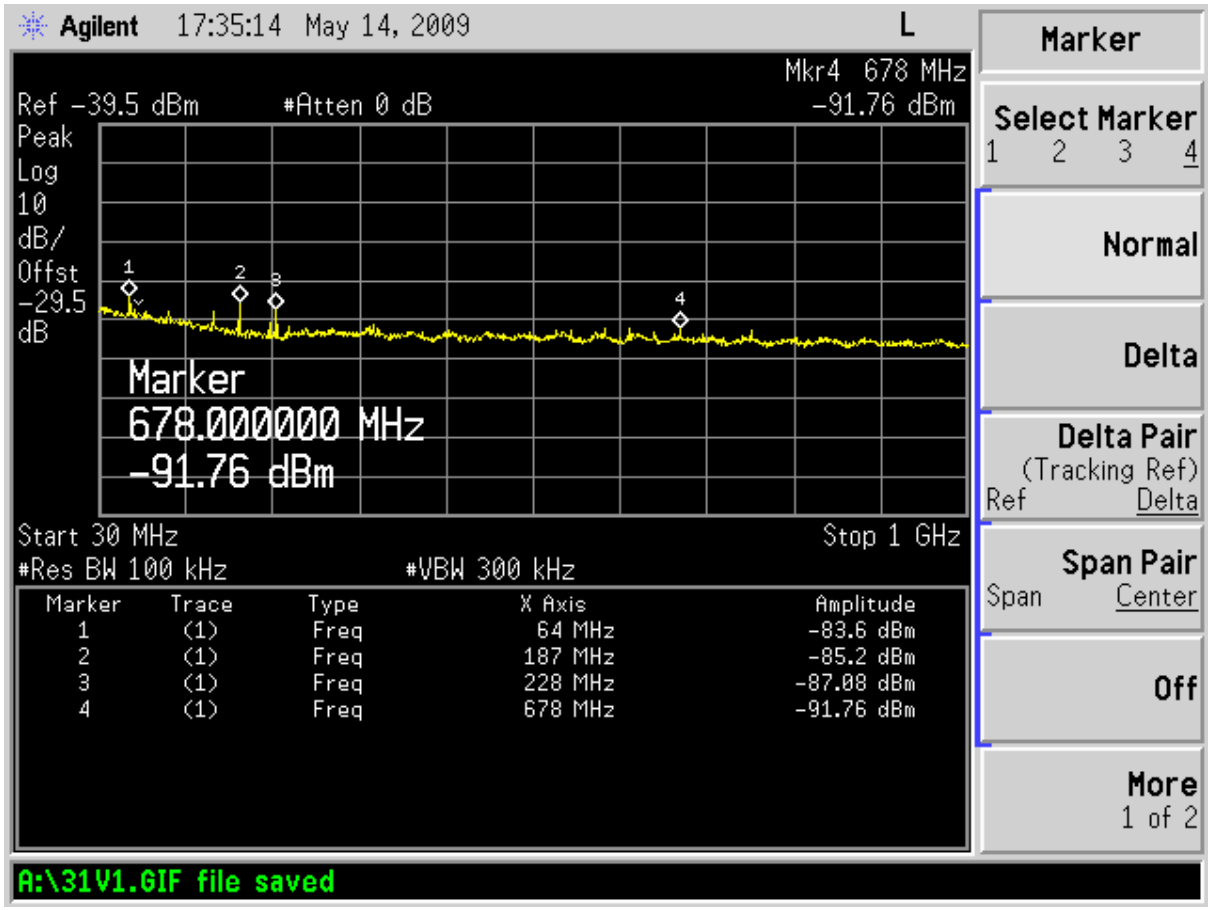
Appendix5 :Plotted Data of 30MHz to 1GHz(Radiated Idle)



H

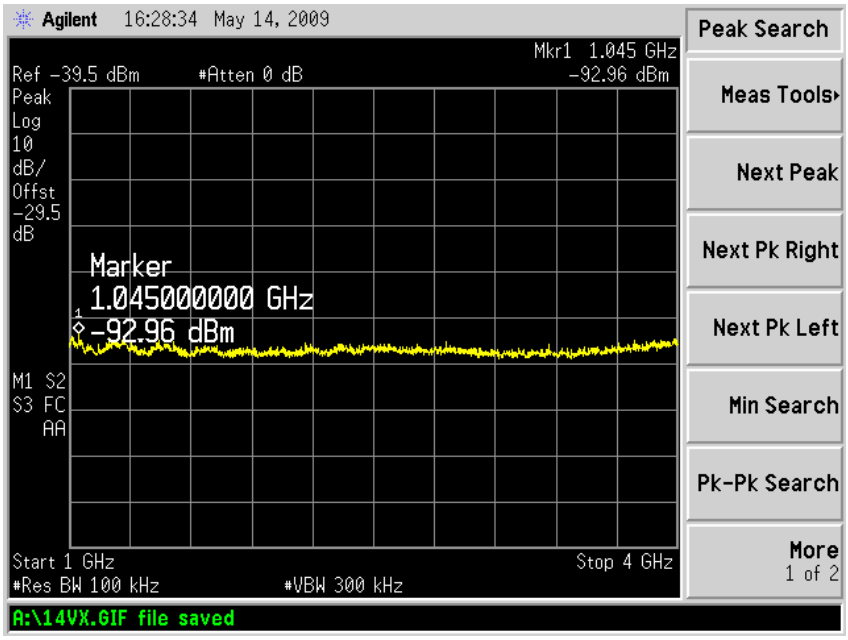
678MHz at V

ERP=-65.5dBm

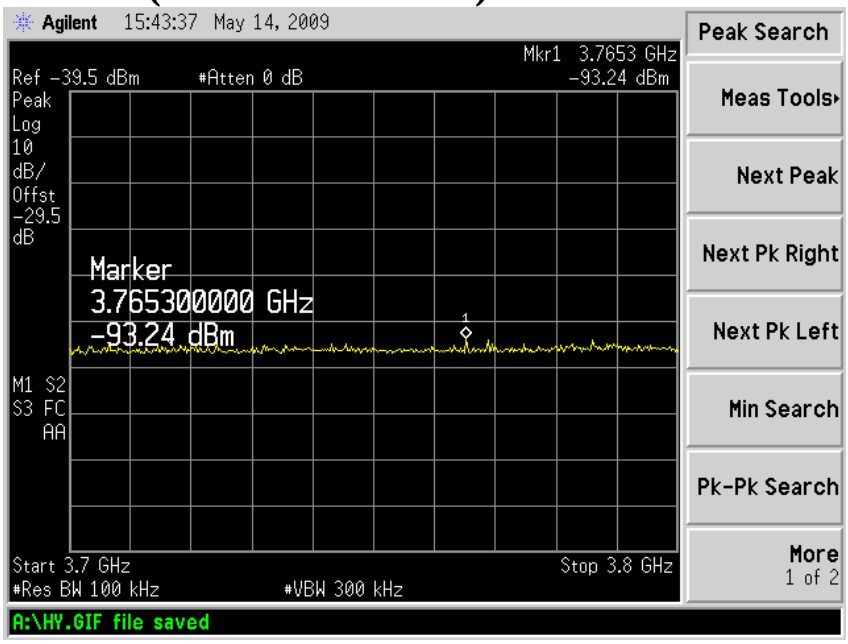

Agilent 17:35:14 May 14, 2009
L
Mkr4 678 MHz
-91.76 dBm
Ref -39.5 dBm
#Atten 0 dB
Peak
Log
10
dB/
Offst
-29.5
dB
Marker
678.000000 MHz
-91.76 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1 GHz
Marker Trace Type X Axis Amplitude
1 (1) Freq 64 MHz -83.6 dBm
2 (1) Freq 187 MHz -85.2 dBm
3 (1) Freq 228 MHz -87.08 dBm
4 (1) Freq 678 MHz -91.76 dBm
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2
A:\31V1.GIF file saved

V

Appendix6 : Plotted Data of 1GHz to 4GHz(Radiated Idle)

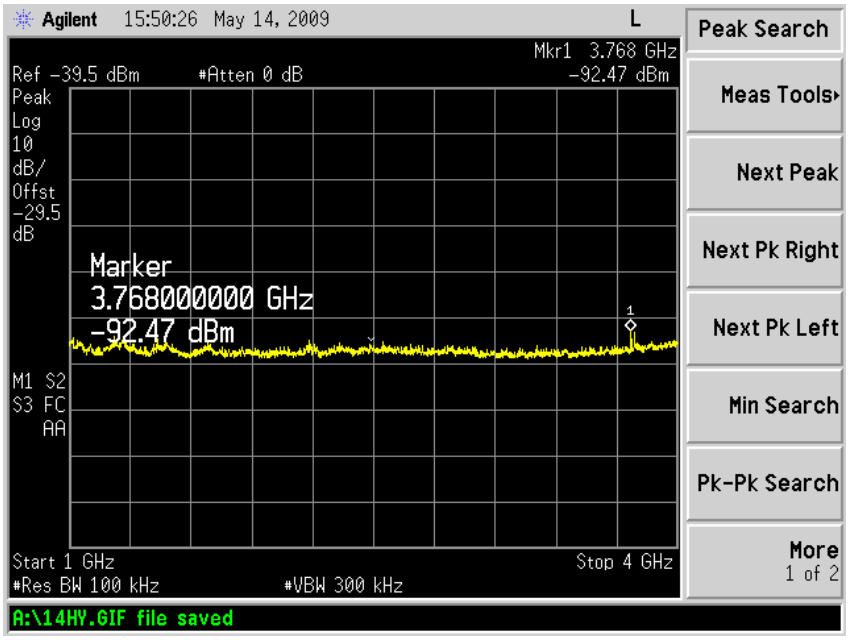


Zoom in(3.7GHz to 3.8GHz)

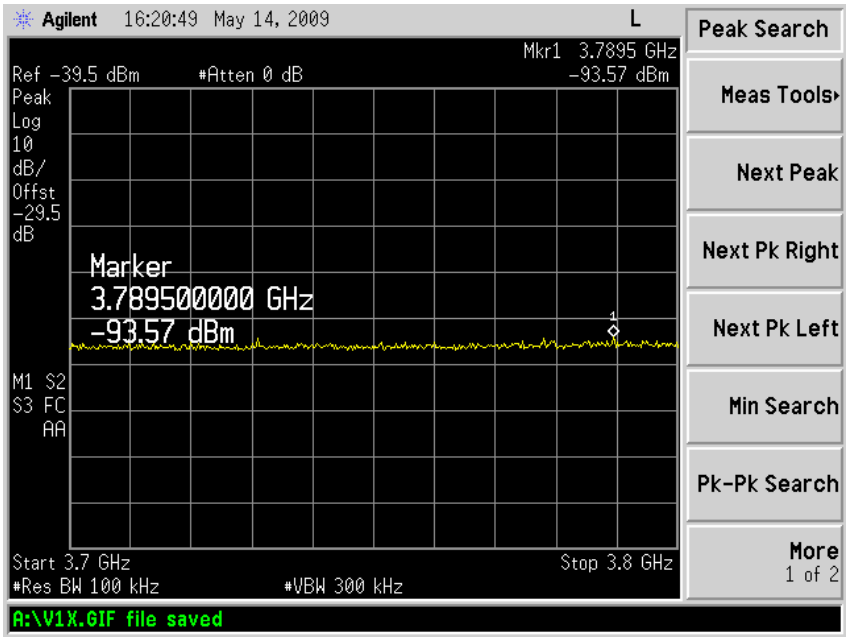


H

ERP=-50.23dBm



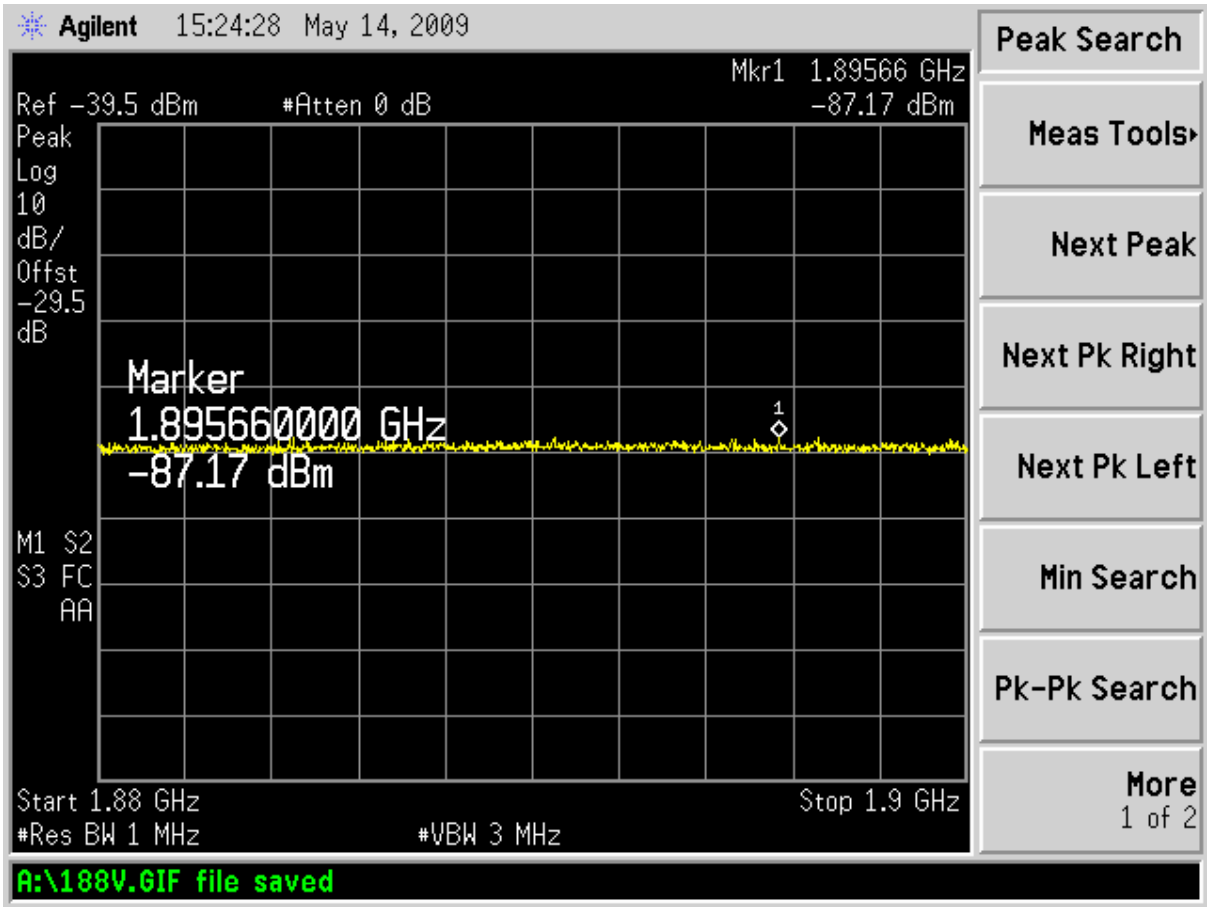
Zoom in



V

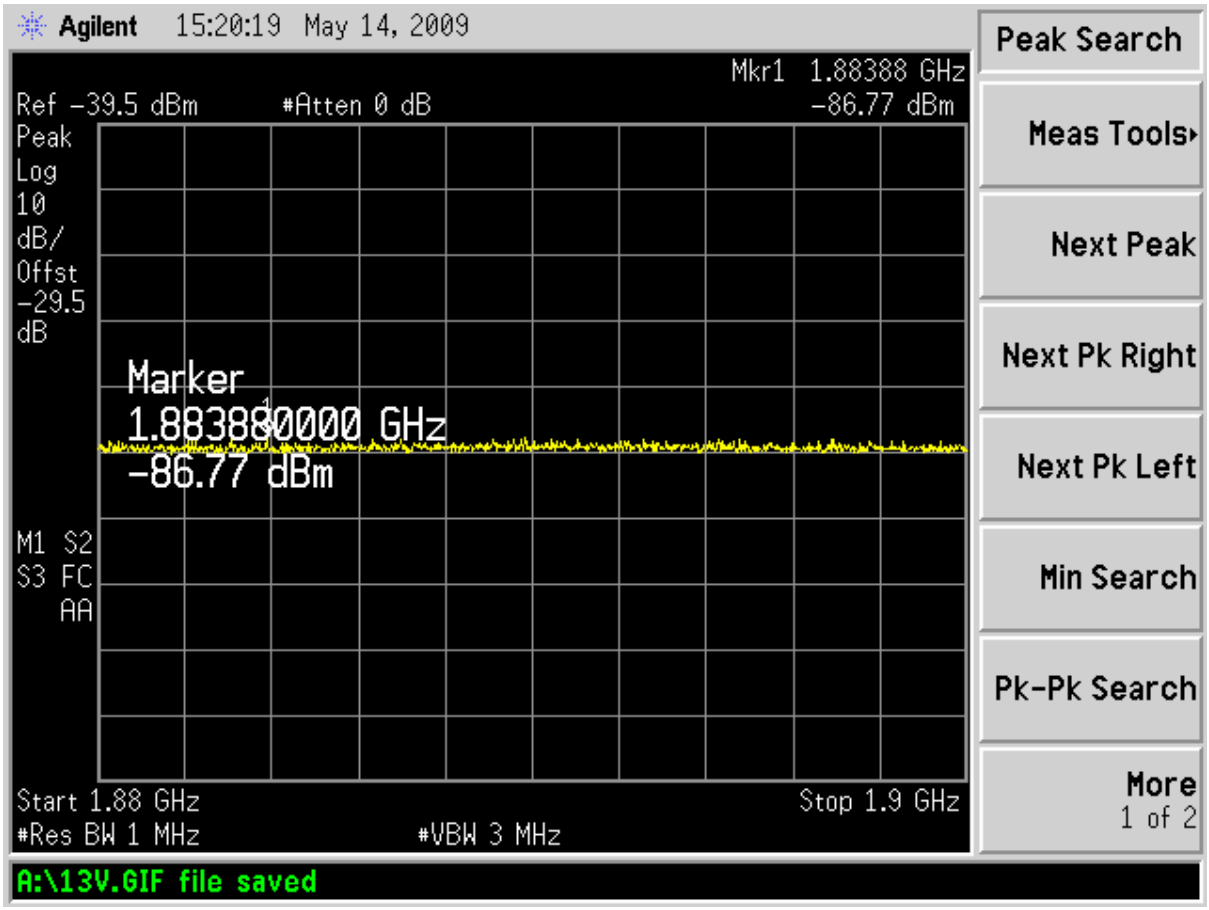
ERP=-48.23dBm

Appendix7 : Plotted Data of DECT Band(Radiated Idle)



H

ERP=-62.72dBm



V

ERP=-62.22dBm

Appendix 8 Photo of the Test Candidate (exterior)

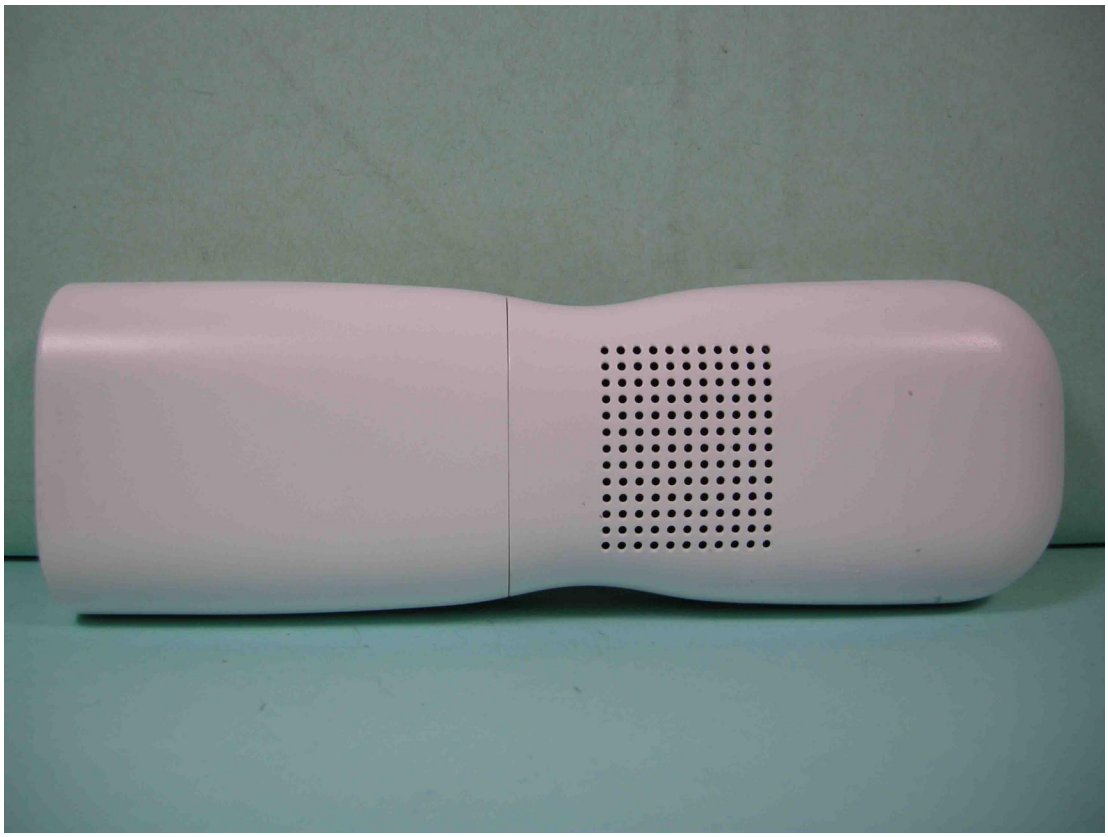


Photo of the Test Candidate (interior)